

What is claimed is:

1. An extendable coupling structure used in an engine and coupled between a piston and a crankshaft, comprising:

5 a first connector, said first connector having a top end pivoted to said piston and a bottom end;

a second connector, said second connector having a bottom end pivoted to said crankshaft and a top end;

hinge means coupled between the periphery of the bottom end of said first connector and the periphery of the top end of said second connector for
10 enabling said first connector and said second connector to be turned relative to each other between a close position and an open position; and

spring-based guide means coupled between the bottom end of said first connector and the top end of said second connector and adapted to guide movement of said first connector and said second connector between said close
15 position and said open position.

2. The extendable coupling structure as claimed in claim 1, wherein said first connector comprises a ball socket formed in the bottom end thereof, said second connector comprises a stepped receiving hole axially extended in the top end thereof; said spring-based guide means has first end coupled to the
20 ball socket of said first connector and a second end axially movably coupled to the stepped receiving hole of said second connector.

3. The extendable coupling structure as claimed in claim 2, wherein said spring-based guide means comprises a spring guide pin axially movable

suspended in said stepped receiving hole of second connector, said spring guide pin having a top end aimed at said ball socket of said second connector, a spring member mounted around said spring guide pin in said stepped receiving hole, said spring member having a top end fixedly fastened to the periphery of said spring guide pin and a bottom end supported on a step inside said stepped receiving hole, and a movable press rod member, said movable press rod member having a top end terminating in a rounded head coupled to said ball socket of said first connector and a bottom end terminating in a flat circular block axially movably fitted into said stepped receiving hole and stopped against the top end of said spring member and the top end of said spring guide pin.

4. The extendable coupling structure as claimed in claim 3, wherein said spring member is a compression spring.

5. The extendable coupling structure as claimed in claim 3, wherein said spring guide pin has the top end thereof formed integral with the flat circular block of said movable press rod member.